



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0547; Directorate Identifier 2013-NM-028-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 727-200 and 727-200F series airplanes. This proposed AD is intended to complete certain mandated programs intended to support the airplane reaching its limit of validity (LOV) of the engineering data that support the established structural maintenance program. This proposed AD would require a one-time inspection for cracking of the pressure floor of both main wheel wells, and related investigative and corrective actions if necessary; and would require modifying the pressure floor of both main wheel wells. We are proposing this AD to prevent fatigue cracking in the pressure floor of the main wheel wells, which could lead to rapid loss of cabin pressurization.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Galib Abumeri, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Blvd., Suite 100, Lakewood, CA 90712-4137; phone: 562-627-5324; fax: 562-627-5210; email: Galib.Abumeri@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0547; Directorate Identifier 2013-NM-028-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

As described in FAA Advisory Circular 120-104 (http://www.faa.gov/documentLibrary/media/Advisory_Circular/120-104.pdf), several programs have been developed to support initiatives that will ensure the continued airworthiness of aging airplane structure. The last element of those initiatives is the requirement to establish a LOV of the engineering data that support the structural maintenance program under 14 CFR 26.21. This AD is the result of an assessment of the previously established programs by Boeing during the process of establishing the LOV for Boeing Model 727 series airplanes. The action specified in this proposed AD is necessary to complete certain programs to ensure the continued airworthiness of aging airplane structure and to support an airplane reaching its LOV.

We have received reports of cracks in the pressure floor of the main landing gear (MLG) wheel wells. Three operators reported cracks from 25 to 48 inches long, resulting

in rapid decompression of the airplane. Twenty-four operators reported 67 airplanes with cracks up to two inches located in the reinforcing beads on both sides of the frame. This fatigue cracking, if not corrected, could result in rapid loss of cabin pressurization.

Relevant Service Information

We reviewed Boeing Service Bulletin 727-53A0124, Revision 3, dated November 30, 1989. For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for Docket No. FAA-2013-0547.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require a one-time eddy current inspection, penetrant inspection, or detailed inspection for cracking of the pressure floor of both main wheel wells as described in Part I, "Inspection," of the Accomplishment Instructions of the service information described previously, and related investigative and corrective actions if necessary; and would also require accomplishing the modification specified in Part III, "Preventive Modification," of the Accomplishment Instructions of the service information described previously.

The phrase "related investigative actions" is used in this proposed AD. "Related investigative actions" are follow-on actions that: (1) are related to the primary actions, and (2) are actions that further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

In addition, the phrase “corrective actions” is used in this proposed AD. “Corrective actions” are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Differences Between the Proposed AD and the Service Information

Prior to accomplishing the preventive modification, this proposed AD would require a one-time inspection of the pressure floor for cracks in both the right and left main wheel wells, and corrective actions if necessary, in lieu of the repetitive inspections specified in Boeing Service Bulletin 727-53A0124, Revision 3, dated November 30, 1989. The repetitive inspections are addressed by AD 91-22-08, Amendment 39-8068 (56 FR 57233, November 8, 1991). Additionally, the applicability of this proposed AD is different than the effectivity described in Boeing Service Bulletin 727-53A0124, Revision 3, dated November 30, 1989.

Explanation of Compliance Time

The compliance time for the modification specified in this proposed AD for addressing WFD was established to ensure that discrepant structure is modified before WFD develops in airplanes. Standard inspection techniques cannot be relied on to detect WFD before it becomes a hazard to flight. We will not grant any extensions of the compliance time to complete any AD-mandated service bulletin related to WFD without extensive new data that would substantiate and clearly warrant such an extension.

Related Rulemaking

AD 90-06-09, Amendment 39-6488 (55 FR 8370, March 7, 1990), requires accomplishing the preventive modification specified in Boeing Alert Service Bulletin 727-53A0124, Revision 2, dated May 2, 1975, for airplane line numbers 1 through 1102 inclusive. AD 91-22-08, Amendment 39-8068 (56 FR 57233, November 8, 1991), requires compliance with the inspection and repair, if necessary specified in Boeing

Service Bulletin 727-53A0124, Revision 3, dated November 30, 1989, for airplane line numbers 1 through 1832 inclusive, but does not require the preventive modification.

Costs of Compliance

We estimate that this proposed AD affects 94 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

| Action | Labor cost | Parts cost | Cost per product | Cost on U.S. operators |
|-----------------------------|---|-------------------|-------------------------|-------------------------------|
| Inspection and Modification | 222 work-hours X \$85 per hour = \$18,870 | \$2,906 | \$21,776 | \$2,046,944 |

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2013-0547; Directorate Identifier 2013-NM-028-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

This AD affects AD 91-22-08, Amendment 39-8068 (56 FR 57233, November 8, 1991).

(c) Applicability

This AD applies to The Boeing Company Model 727-200 and 727-200F series airplanes, certificated in any category, lines numbers 1103 and subsequent.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD is intended to complete certain mandated programs intended to support the airplane reaching its limit of validity (LOV) of the engineering data that support the established structural maintenance program. We are issuing this AD to prevent fatigue cracking in the pressure floor of the main wheel wells, which could lead to rapid loss of cabin pressurization.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection

Before the accumulation of 60,000 total flight cycles, or within 24 months after the effective date of this AD, whichever occurs later: Do a one-time detailed inspection for cracking of the pressure floor of both main wheel wells, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 727-53A0124, Revision 3, dated November 30, 1989, except as specified in paragraph (h) of this AD. If any

indication of distress is found (such as cracking or flaked paint): Before further flight do an eddy current inspection or penetrant inspection for cracking of the pressure floor of both main wheel wells, and do all applicable related investigative and corrective actions, by accomplishing all the actions specified in the Accomplishment Instructions of Boeing Service Bulletin 727-53A0124, Revision 3, dated November 30, 1989. Do all applicable related investigative and corrective actions before further flight.

(h) Exception to Service Information

Where Boeing Service Bulletin 727-53A0124, Revision 3, dated November 30, 1989, specifies a close visual inspection, this AD requires a detailed inspection, which is an intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required.

(i) Preventive Modification

Before further flight after accomplishing the actions required by paragraph (g) of this AD: Do a preventive modification of the pressure floor of both main wheel wells, in accordance with Part III of the Accomplishment Instructions of Boeing Service Bulletin 727-53A0124, Revision 3, dated November 30, 1989.

(j) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (i) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 727-53A0124, Revision 2, dated May 2, 1975.

(k) Termination of Certain Actions in AD 91-22-08, Amendment 39-8068 (56 FR 57233, November 8, 1991)

Accomplishment of the preventative modification required by paragraph (i) of this AD terminates the repetitive inspection requirement required by AD 91-22-08, Amendment 39-8068 (56 FR 57233, November 8, 1991) for airplanes with line number 1103 and subsequent.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(m) Related Information

(1) For more information about this AD, contact Galib Abumeri, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Blvd., Suite 100, Lakewood, CA 90712-4137; phone: 562-627-5324; fax:562-627-5210; email: Galib.Abumeri@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on July 5, 2013.

Jeffrey E. Duvon,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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